

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 October 2004 (28.10.2004)

PCT

(10) International Publication Number
WO 2004/093306 A3

(51) International Patent Classification⁷: **H02K 49/04**,
49/10, 49/06, 41/02

(21) International Application Number:
PCT/US2004/010236

(22) International Filing Date: 2 April 2004 (02.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/461,883 10 April 2003 (10.04.2003) US

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(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

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KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

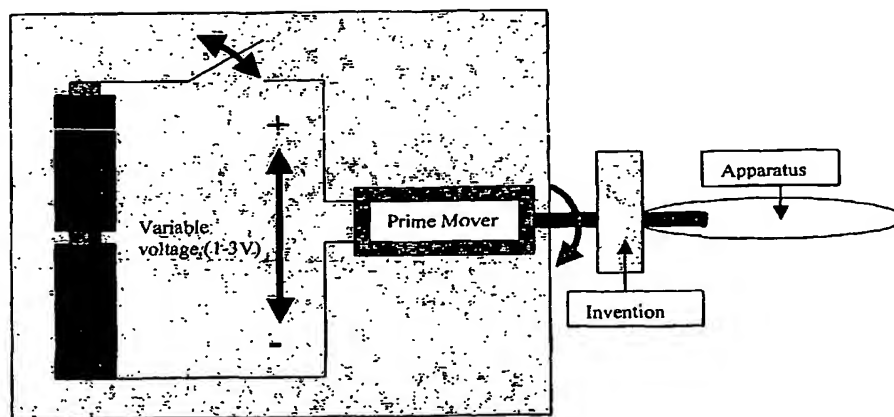
Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
28 April 2005

[Continued on next page]

(54) Title: MOTION CONTROL USING ELECTROMAGNETIC FORCES



(57) Abstract: An apparatus has (a) a first component having one or more electromagnetic elements and (b) a second component having one or more electromagnetic elements and movably coupled to the first component. The second component moves with respect to the first component in a cyclical manner. The one or more electromagnetic elements of the first component interacts with the one or more electromagnetic elements of the second component during each of one or more cycles of motion of the second component with respect to the first component such that, when a constant force profile is applied to move the second component with respect to the first component, the speed of motion increases and decreases one or more times during each cycle of motion due to different levels of electromagnetic interaction between the electromagnetic elements within each cycle of motion.

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INTERNATIONAL SEARCH REPORT

ational Application No
/US2004/010236

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H02K49/04 H02K49/10 H02K49/06 H02K41/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H02K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 675 506 A (NICK A. LEONE) 11 July 1972 (1972-07-11) column 1, line 8 - line 20; compounds column 2, line 55 - column 3, line 7; figures	1, 4-8, 10-20, 23-25, 35, 36, 38-43
X	US 3 510 705 A (JAMES P. O'NEILL ET AL) 5 May 1970 (1970-05-05)	1-6, 8-12, 19, 20, 23-25, 29, 33, 37
Y	column 5, line 44 - column 6, line 20; figures ----- -/--	20, 21, 26-28

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Date of the actual completion of the international search

21 February 2005

Date of mailing of the international search report

28/02/2005

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INTERNATIONAL SEARCH REPORT

International Application No

'US2004/010236

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	----- DE 42 36 428 A1 (DANA CORP., TOLEDO, OHIO, US) 6 May 1993 (1993-05-06) column 2, line 37 - line 60; figures	1, 29, 34
X	----- US 3 493 905 A (HOWARD F. FOULKE ET AL) 3 February 1970 (1970-02-03) abstract; figures	26-28
Y	-----	

INTERNATIONAL SEARCH REPORT

International Application No

US2004/010236

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